Georgia Basin-Puget Sound Ecosystem Indicators Report Technical Backgrounders

Population

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Transboundary Georgia Basin-Puget Sound Working Group on Environmental Indicators

Georgia Basin Ecosystem Initiative, Environment Canada BC Ministry of Water, Land and Air Protection Puget Sound Water Quality Action Team Washington State Department of Ecology US Environmental Protection Agency

Population in the Georgia Basin

Regional estimates are calculated by the Population Section of BC Stats through a regional estimation model that has been developed and refined over the past 20 years. This model, which uses indicators such as residential electrical connections and Old Age Security data, has enabled BC Stats to produce relatively accurate population estimates without the high cost of conducting a census. Population estimates are as of July 1 and are updated each year. Statistics Canada took the last census on May 14, 1996. The estimates produced by BC Stats adjust the Census data for undercount (3-4% province-wide) and for the July 1 date.

On a quarterly basis, Statistics Canada produces provincial-level population estimates and normally revises back to the most recent Census as new data comes available. BC Stats estimates use these provincial-level figures as control totals for sub-provincial regions. Revisions will occur in historical estimates of sub-provincial regions.

The population forecast is the result of the application of a "Component/Cohort-Survival" population model to assumptions dealing with fertility, mortality and migration. The Component/Cohort-Survival method requires separate forecasts of each of the components of population change. With this information, and with a base year age-specific estimate of population, a forecast for any subsequent year is made by promoting each age group in the preceding year to the next highest age group, while at the same time taking into account the effects of net migration, deaths and births.

The forecast represents adjustments to a trend based on the professional judgement of the forecaster regarding the way in which future growth will be affected by current and future developments. (A projection is a simulation based primarily on historical data.)

For detailed methodology on the population estimates and forecasts see http://www.bcstats.gov.bc.ca/data/pop/pop/methods.htm

Georgia Basin is defined as the sum of the Regional Districts of

- Fraser Valley
- Greater Vancouver
- Sunshine Coast
- Powell River
- Capital
- Cowichan Valley
- Nanaimo

As well as Local Health Areas

- 48 Howe Sound
- 71 Courtenay
- 72 Campbell River.

These regions with the exception of LHA 72 Campbell River closely approximate the geographic area of the Basin. Although Campbell River and the immediate area, the southern part of Quadra Island and Cortes Island are within the Basin, LHA 72 extends north of Campbell River and on to the mainland, picking up a large geographic region outside the Basin. However, in terms of population, based on the 1996 Census, 88% of the people in LHA 72 outside of Campbell River municipality are within the Basin boundaries.

Annual total population estimates and forecasts are based on this definition of Georgia Basin (i.e. includes LHA 72 Campbell River in its entirety) Note; these data are as of July 1 each year. BC Stats is the author of these series and has used the census figures as benchmarks, adjusting for the undercount and the dates (Census dates were May 14, 1996 and June 4, 1991.).

Annual estimates and projections by age and gender are also produced by BC Stats and will be based on the same geography as above. The annual population estimates and projections used in the Georgia Basin document are from P.E.O.P.L.E. 25, produced by BC Stats in the spring of 2000.

Population used with land area to calculate density will be taken directly from the Census for years 1991 and 1996 and will be based on the Georgia Basin area – that is, Enumeration Area data from the Census will be used to take only that part of LHA 72 that falls within the Basin.

1996 Census based data, other than simple population, will be based on the Regional Districts and LHAs listed above. (A special tabulation at the LHA level has been acquired from Statistics Canada.)

1991 Census based data will use the Regional Districts and Census Subdivisions that are equivalent to the Local Health Areas. There have been changes to the Regional Districts between 1991 and 1996. By 1996, Greater Vancouver Regional District had annexed the municipalities of Maple Ridge and Pitt Meadows from Dewdney-Alouette Regional District; the balance of Dewdney-Alouette, and all of Central Fraser Valley and Fraser-Cheam Regional Districts joined to become the Fraser Valley Regional District. Other Regional Districts involved remained unchanged. The LHA Census Subdivision equivalents are:

LHA 48 Howe Sound = Squamish, Pemberton, Whistler, Cheakamus 11 IR, Kowtain 17 IR, Nequatque 1 IR, Nequatque 2 IR, Nequatque 3A IR, Seaichem 16 IR, Stawamus 24 IR, Waiwakum 14 IR, Yekwaupsum 18 IR, and Squamish-Lillooet Subdivision B.

LHA 71 Courtenay = Comox, Courtenay, Cumberland, Comox 1 IR, Comox-Strathcona Subdivision C.

LHA 72 Campbell River = Campbell River, Sayward, Aupe 6 IR, Aupe 6A IR, Cape Mudge 10 IR Tork 7 IR, Campbell River 11 IR, Quinsam 12 IR, Comox-Strathcona Subdivision A and Subdivision B.

There are a few additional Indian Reserves within these areas that are not listed as they have either no population or were not enumerated in the census and therefore there are no data for these areas.

		(US 2000 Census)	Projected		% Growth	% Projected		% Growth	Average Annual	Average Annual	Average Annual
County/RD	Pop. in 1991	Pop. in 2000	Pop. in 2020	% Pop 2000	since 1991	Growth to 2020	% Pop 2020	1991 to 2020	Growth	Growth 2000-2020	Growth
Comox-Strathcona*	83,235		136,846		23.71	32.90			2.63		
Capital	313,997	334,847	402,431	4.81	6.64	20.18		1	0.74		0.97
Clallam	58,500		82,477	0.93	10.30	27.82			1.14		
Cowichan Valley	62,185		· · · · · · · · · · · · · · · · · · ·	1.10			-	4			
Fraser Valley	191,111	243,280		3.49				i i			
Greater Vancouver		2,015,807	-		22.37	34.31	29.48	1	2.49		
Squamish**	21,658			0.46	47.58	76.83		160.97	5.29		
Island	62,700		-	1.03	14.13	49.04			1.57		
Jefferson	21,600	-		0.37	20.15				2.24		
King	1,542,286	i	2,030,674		12.63			4	1.40		
Kitsap	196,500		337,602	3.33	18.05	45.54		71.81	2.01	2.28	
Mason	39,900	*	-		23.82	42.83		76.85			
Nanaimo	108,327	134,849		1.94	24.48	49.12	2.19				
Pierce	603,800		-	10.06	16.07	30.83		51.85			
Powell River	19,671	21,060		0.30	7.06			1.58			
San Juan	10,700		21,110		31.56			4	3.51	2.50	
Skagit	82,790	•	-	1.48	24.39	48.39		1	2.71	2.42	
Snohomish	483,986	*	836,992	8.70	25.22	38.11	9.11	72.94	2.80		2.52
Sunshine Coast	22,219		-	0.40		67.20		109.48			
Thurston	168,000		-	2.98	23.43		-	4			
Whatcom	132,200			2.39				1			
TOTAL GB/PG		6,968,011			18.65		100.00				

^{*}sub areas with population primarily within the Georgia Basin (Local Health Areas 71 and 72)

^{**}sub area of the Squamish-Lillooet Regional District (Local Health Area 48)

U.S. Population Census, Estimates and Projections

Puget Sound population estimates were developed from county-level information provided by the Washington State Office of Financial Management (OFM) and the results of the 2000 U.S. Census. County-level population estimates, projections and 2000 Census counts are available at OFM's web site: http://www.ofm.wa.gov/demographics.htm#pop

The populations of each of the 12 counties that border Puget Sound were summed to develop the Puget Sound population estimates for each year. These estimates are inexact measures of the population in the Puget Sound basin because:

- 1) The population of the small portion of Lewis County that is within the Puget Sound Basin is not included.
- 2) The total populations of Mason, Jefferson and Clallam counties are included rather than excluding the relatively small portions of those populations representing the people that live in the sparsely populated areas of these counties that lie outside the Puget Sound basin.

The population projections for future years were developed by OFM in 1995 (for use in Washington State growth management activities). These forecasted numbers include three series of projections of population growth (high, medium and low). The data presented here are from the medium series. The web site identified above includes information about OFM's method of population forecasting.